# MACHAKOS UNIVERSITY

**University Examinations for 2019/2020 Academic Year**

**SCHOOL OF AGRICULTURAL SCIENCES**

**DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE**

**THIRD YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR**

**BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION**

**ANS 301: RUMINANT ANIMAL PRODUCTION**

**DATE:  19/01/2021**                                                    **TIME: 8.30-10.30 AM**

**INSTRUCTIONS;**

**Instructions: Answer question ONE and any other TWO questions**

## QUESTION ONE (30 MARKS)

a)      Explain **TWO** disadvantages of using Bomas as housing units in ruminant animal husbandry                                                                                                        (4 marks)

b)      Explain the management aspects to control scouring in calves                    (4 marks)

c)      Explain FOUR differences between ruminant and non-ruminant digestive systems (4 marks)

d)      Explain **TWO** reasons why it is important to carry out the following routine management practices in ruminant animal husbandry

      i.      Livestock identification                                                              (2 marks)

      ii.     Dehorning                                                                                  (2 marks)

      iii.    Dipping                                                                                       (2 marks)

e)      Explain **FIVE** factors considered in selecting breeding Does                    (5 marks)

f)      Distinguish between the following in livestock production                          (4 marks)

      i.      Hides and skins

      ii.     Beef and mutton

g)      Explain **THREE** reasons why proper milking techniques should be used          (3 marks)

**QUESTION TWO (20 MARKS)**

a)  Explain **FIVE** methods that can be used for identifying livestock  (10 marks)

b)  Describe the Boran breed of cattle under the following headings

   i.  Disease resistance  (5 marks)

   ii.  Survival  (5 marks)

**QUESTION THREE (20 MARKS)**

a)  Explain **FIVE** advantages of partitioning sheep and goat houses  (10 marks)

b)  Explain **FIVE** reasons why disease and treatment records are important  (10 marks)

**QUESTION FOUR (20 MARKS)**

a)  Describe **FIVE** ways in which climate change affect ruminant animal production (10 marks)

b)  Explain the advantages of ranching over nomadic pastoral production systems.  (10 marks)

**QUESTION FIVE (20 MARKS)**

a)  Describe **FIVE** ways of managing cow milking shed  (10 marks)

b)  Ruminant animals can be used for draught purposes.  (10 marks)

   i.  Explain **FIVE** management challenges they face

   ii.  How can these challenges be overcome?